

towards the margin; the stem is similar in color, with a close scurfy covering, glabrous and somewhat yellow above, marked with raised lines as in *B. luridus*; the tubes are yellow with brown mouths; the yellow flesh and the tubes change almost instantly to blue. Its spores are "too small for *B. luridus*," being 10 to 11½ by 5 to 5½ μ.

In addition there is the usual remnant of isolated collections awaiting determination, the final disposal of which may increase the list. Specimens of all the species here mentioned are preserved in the herbarium of the Alstead School of Natural History, and many of them also in that of the Boston Mycological Club.

ORCHIDS OF MT. GREYLOCK, MASSACHUSETTS.

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MT. GREYLOCK, from its foremost position among the mountains of Massachusetts, and its recent promotion to the dignity of a State Reservation, assumes such an importance that a brief consideration of a few of its floral features may not be out of place. The mountain, situated in western Massachusetts, represents a detached spur of the Taconic system and forms an irregular mass several miles in length and breadth, with several peaks and various depressions and eroded valleys. On account of its great extent and its varied conditions of altitude, soil, drainage, and exposure it presents a flora of great interest and variety.

In point of distribution its Orchids especially furnish a study which well rewards investigation. We may conveniently divide the mountain surface into four sets of conditions, marked generally by pronounced floral distinctions, as follows: 1. Unwooded lower slopes including grassy pastures, springy meadows, narrow drainage valleys, etc. 2. Lower wooded slopes. 3. Upper wooded slopes. 4. Clearings, at various elevations, generally thickly overgrown with June grass, sometimes with blueberry bushes, ferns, etc.

In the first-mentioned localities, comparatively dry, steep, hillside pastures yield *Habenaria lacera* and *Spiranthes gracilis*, both very common species of this portion of Massachusetts. The more moist, level places furnish *S. latifolia* and *S. cernua*. Upon a steep bank with a colony of sundew grows *Habenaria tridentata*.

The areas referred to as the lower wooded slopes are possibly the richest in species and afford approximately in the order of ascent, *Orchis spectabilis*, *Cypripedium acaule*, *Habenaria Hookeri*, *Liparis liliifolia*, *Habenaria bracteata*, *H. hyperborea*, *Corallorhiza multiflora*, *Habenaria orbiculata*, and *Goodyera tessellata*.

While it is hard to draw a definite line between the lower and upper slopes the following distinction may generally be made, the lower are usually well drained by numerous brooks giving firmer and drier soil, while the forest growth is largely of deciduous species; the upper, on the other hand, are extremely wet and cold, and evergreen trees preponderate, particularly spruces and balsams. To the upper slopes belong *Microstylis monophyllos* with occasional specimens of *Corallorhiza innata*, the drier soil under spruce groves being carpeted with beautifully reticulated leaves of *Goodyera repens* var. *ophioides*. *Habenaria dilatata* is also reported here, probably correctly, though I have not yet seen it.

The clearings are characteristic, generally natural, and frequently of considerable extent. *Habenaria lacera* is unfailingly present, and, no matter how dry the soil or the summer, always makes an effort to unfold its flowers and develop its seed. As a good example of the pertinacity of this species, I found on a very small grass plot not far below the summit, at an elevation of something over three thousand feet, two specimens just coming into bloom, the date being the seventh of August, a month later than its date of flowering in the valleys below. The occurrence of *Microstylis ophioglossoides* in one of these dry, grass-covered meadows is noteworthy as so inconsistent with its usual habitat. It occurs, so far as I know, only in one place, but is there rather abundant and seems to thrive and bloom as well as in more congenial swampy localities, though it very seldom develops a seed-pod.

The above observations are based upon personal exploration of a portion of the mountain surface, and while not necessarily exhaustive, and probably admitting of exceptions and additions for other portions, may be taken as a fair statement of the general conditions of growth and distribution of Orchidaceae of Greylock Mountain.

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